AF/2686

#25
20
5-24-04

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Attorney Docket No.: **JA919990082US1**

In re Application of: §

HORIKOSHI ET AL. §

Serial No.: **09/625,762** §

Filed: **26 JULY 2000** §

For: **METHOD AND COMPUTER FOR REMOTE COMMUNICATION WHILE OPERATING IN A POWER-SAVING MODE** §

Examiner: **CONTEE, J.**

Art Unit: **2686**

APPEAL BRIEF

MS Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Brief is submitted in triplicate in support of the Appeal in the above-identified application.

CERTIFICATE OF MAILING
37 CFR 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as First-Class Mail in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date below.

5/12/04
Date

Vicky Siligowsky
Signature

TABLE OF CONTENTS

REAL PARTY IN INTEREST

The present application is assigned to International Business Machines Corporation, the real party of interest.

RELATED APPEALS AND INTERFERENCES

No related appeal is presently pending.

STATUS OF THE CLAIMS

Claims 1, 3-7, 9-10 and 14-16 stand finally rejected by the Examiner as noted in the Final Office Action dated October 23, 2003 and in the Advisory Action dated April 29, 2004.

STATUS OF AMENDMENTS

Claim amendments were submitted subsequent to the Final Office Action dated October 23, 2003, and the claim amendments were entered as stated in the Advisory Action dated April 29, 2004.

SUMMARY OF THE INVENTION

Notebook computers typically have software utilities for reducing power consumptions. A common method of reducing power consumption of a notebook computer is to allow the notebook computer to enter a power-saving mode when no user input has been detected by the notebook computer after a predetermined amount of time. During the power-saving mode, the main processor of the notebook computer enters a power-down state during which the main processor ceases executing program code but can be revived by a triggering event such as an interrupt caused by a user pressing a keyboard key on the notebook computer.

Wireless communications to a notebook computer can be accomplished by using radio frequency channels to transmit and receive information. Typically, the operating system and an application software within a notebook computer are required to be active during wireless communications. However, when a notebook computer is in a power-saving mode, a communication device within the notebook computer that is required for communication may be

in an inactive state or the processor may be in a state that is incapable of handling communications. Thus, wireless communications are inhibited for a notebook computer that is operating in a power-saving mode. Consequently, it is desirable to provide a method for a notebook computer to receive a wireless signal when the notebook computer is operating under a power-saving mode.

In accordance with a preferred embodiment of the present invention, a notebook computer is set to detect a wireless signal representing a bit sequence when the notebook computer is operating under a power-saving mode, as shown in blocks **107** and **113** of Figure **3**. The wireless signal is targeted for the notebook computer, and the bit sequence in the wireless signal includes a request for the notebook computer to exit the power-saving mode. In response to the wireless signal, the notebook computer exits the power-saving mode automatically, as depicted in block **117** of Figure **3**. Some or all of the bit sequence of the wireless signal are then regenerated within the notebook computer. Finally, the regenerated bit sequence of the wireless signal is stored in a memory device of the notebook computer after the notebook computer has exited the power-saving mode.

ISSUES

1. Is the Examiner's rejection of Claims 1, 3-6 and 9 under 35 U.S.C. § 102(e) as being anticipated by *Wecker et al.* (US 6,289,464) well-founded?

2. Is the Examiner's rejection of Claims 7, 10 and 14-16 under 35 U.S.C. § 103(a) as being unpatentable over *Wecker et al.* (US 6,289,646) in view of well-known prior art in the field of the invention well-founded?

GROUPING OF THE CLAIMS

For purposes of this Appeal, Claims 1, 3-7, 9-10 and 14-16 stand or fall together as a single group.

ARGUMENT

The Examiner's rejections of Claims 1, 3-7, 9-10 and 14-16 are not well-founded and should be reversed.

I. *Wecker* does not teach or suggest the claimed status bits

Claim 1 (and similarly Claim 10) recites steps of "providing a plurality of status bits to indicate whether or not a RF module is attached to said computer and is activated" (lines 3-4), "determining whether said RF module is attached to said computer and is activated by reading said plurality of status bits" (lines 8-9) and "exiting said power-saving mode only if said RF module is attached to said computer and is activated" (lines 10-11). On page 3 of the Final Office Action, the Examiner asserts that the claimed status bits are disclosed by *Wecker* because interface controller **66** of *Wecker* is "designed and operates according to known industry standards such as PCMCIA and Compact Flash Specifications" (col. 7, lines 3-5). The Examiner further asserts that the claimed determining step is disclosed by *Wecker* in col. 6, line 57 - col. 7, line 21, and that the claimed exiting step is disclosed by *Wecker* in col. 9, lines 29-42.

The Examiner is basically asserting that the claimed status bits must exist in *Wecker* because there are communications between RF receiver **60** and interface controller **66**. But the fact is that the claimed status bits are not explicitly taught or suggested by *Wecker*. Such is evidenced by the fact that the claimed step of "determining whether said RF module is attached to said computer and is activated by reading said plurality of status bits" is not found in col. 6, line 57 - col. 7, line 21 of *Wecker*.

Col. 9, lines 29-42 of *Wecker* describes steps **110**, **112** and **114** of Figure **7**. Step **110** concerns with a determination as to whether or not all information can be stored in a memory **64**, and steps **112** and **114** describe the two possible outcomes of the above-mentioned determination. Hence, col. 9, lines 29-42 of *Wecker* is not related to the claimed step of "exiting said power-saving mode only if said RF module is attached to said computer and is activated." Because the claimed invention includes novel features that are not taught or suggested by *Wecker*, the § 102 rejection is improper.

II. *Wecker* does not teach or suggest the claimed regenerating and storing steps

Claim 1 recites steps of "regenerating some or all of said bit sequence of said wireless signal" (line 12) and "storing said some or all of said bit sequence of said wireless signal in a memory after exiting said power-saving mode" (lines 13-14). On page 4 of the Final Office Action, the Examiner asserts that the claimed regenerating step is disclosed by *Wecker* in col. 9, line 43 - col. 10, line 59, and that the claimed storing step is disclosed by *Wecker* in col. 11, lines 24-40 and col. 13, lines 45-65.

After a careful review of col. 9, line 43 - col. 10, line 59 of *Wecker*, it is clear that the above-cited passage does not teach or suggest the regeneration of some or all of the bit sequence of the wireless signal obtained from the detecting step recited in lines 5-7 of Claim 1. Without the regeneration of the bit sequence, *Wecker* would not have taught or suggested the claimed storing of such bit sequence either. Because the claimed invention includes novel features that are not taught or suggested by *Wecker*, the § 103 rejection is improper.

III. *Wecker* does not teach or suggest the claimed FET switch

In addition to "a plurality of status bits for indicating whether or not a RF module is attached to said computer and is activated" (lines 6-7), Claim 10 also recites "a field effect transistor (FET) switch for enabling power to said receiving means when said computer is in said power-saving mode" (lines 11-12). On page 6 of the Final Office Action, the Examiner states that *Wecker* does not "provide any details regarding the types of electronic switch that is used to provide power to the device," but the Examiner then asserts that "it would have been obvious to one skilled in the art at the time of the invention to use an FET switch to maintain power to said receiving means."

According to *Wecker*, "the wireless receiver **27** is powered and capable of receiving information from the wireless transport **14** at all times irrespective of whether other components of the mobile device **10** are operational and receiving power" (emphasis added) (col. 7, lines 26-29). Since *Wecker*'s wireless receiver **27** is powered and capable of receiving wireless information at all times, there would be no reason to use a switch, whether a FET switch or other

types of switch, because the point of using a switch to control the supply of power to the receiving means. When wireless receiver **27** is powered at all times, a switch would be perfunctory. Thus, it is clear that *Wecker* does not teach or suggest a switch, and definitely not the claimed FET switch. Because the claimed invention includes novel features that are not taught or suggested by *Wecker*, the § 103 rejection is improper.

CONCLUSION

For the reasons stated above, Appellants believe that the claimed invention clearly is patentably distinct over the cited references and that the rejections under 35 U.S.C. §§ 102, 103 are not well-founded. Hence, Appellants respectfully urge the Board to reverse the Examiner's rejection.

Please charge the IBM Deposit Account **50-0563** in the amount of $330.00 for submission of a Brief in support of Appeal. No additional fee or extension of time is believed to be required; however, in the event an additional fee or extension of time is required, please charge that fee or extension of time requested to the IBM Deposit Account **50-0563**.

Respectfully submitted,

Antony P. Ng
Registration No. 43,427
DILLON & YUDELL, LLP
8911 N. Cap. of Texas Hwy., suite 2110
Austin, Texas 78759
(512) 343-6116

ATTORNEY FOR APPELLANTS

APPENDIX

1. A method for receiving a wireless signal by a computer adapted to operate in a power-saving mode, said method comprising:

providing a plurality of status bits to indicate whether or not a RF module is attached to said computer and is activated;

detecting within said computer a wireless signal representing a bit sequence when said computer is operating in a power-saving mode, wherein said wireless signal is targeted for said computer;

determining whether said RF module is attached to said computer and is activated by reading said plurality of status bits;

exiting said power-saving mode only if said RF module is attached to said computer and is activated;

regenerating some or all of said bit sequence of said wireless signal; and

storing said some or all of said bit sequence of said wireless signal in a memory after exiting said power-saving mode.

2. cancelled

3. The method of claim 1, wherein said detecting further includes detecting a particular identification tag embedded in said bit sequence.

4. The method of claim 1, wherein wireless signal is transmitted through a radio frequency channel.

5. The method of claim 1, wherein said bit sequence includes a request for said computer to exit said power-saving mode.

6. The method of claim 1, wherein said bit sequence includes a request to resume execution of a program that has been suspended when said computer is in said power-saving mode.

7. The method of claim 1, wherein said method further includes setting a field effect transistor (FET) switch to maintain power to a receiving means prior to entering said power-saving mode.

8. cancelled

9. The method of claim 1, wherein said method further includes:

processing information conveyed by said bit sequence; and

automatically returning to said power-saving mode after said processing.

10. A computer for receiving a wireless signal while in a power-saving mode, said computer comprising:

a receiving means adapted to detect a wireless signal representing a sequence of bits, wherein said receiving means is adapted to regenerate some or all of said bit sequence, wherein said wireless signal is targeted for said computer;

a plurality of status bits for indicating whether or not a RF module is attached to said computer and is activated;

a power-saving mode control means adapted to exit said power-saving mode only if said plurality of status bits indicate said RF module is attached to said computer and is activated;

a field effect transistor (FET) switch for enabling power to said receiving means when said computer is in said power-saving mode; and

a memory for storing said some or all of said regenerated bit sequence after said computer has exited said power-saving mode.

11-13. cancelled

14. The computer of claim 10, wherein said receiving means is an optional attachment to said computer.

15. The computer of claim 10, wherein said receiving means is formed in a device bay cover.

16. The computer of claim 15, wherein said device bay cover is an optional attachment to said computer.

17-19. cancelled